

**SYSTEM AND METHOD FOR  
COMPACTING FIELD UPGRADEABLE WIRELESS  
COMMUNICATION DEVICE SOFTWARE CODE SECTIONS**

5                                   **ABSTRACT OF THE INVENTION**

                                  A system and method are provided for reorganizing  
software instructions stored in a wireless communications device  
memory. The method comprises: storing wireless device system  
software in a plurality of current code sections with the start of code  
10 sections at corresponding start addresses by creating a second  
plurality of contiguously addressed memory blocks, identifying each  
memory block with a corresponding code section, and storing code  
sections in identified memory blocks; receiving a new code section via  
a wireless communications device air interface; identifying a current  
15 code section for updating; calculating the code section sizes; in  
response to calculating the code section sizes, generating a  
compaction schedule; resizing current code sections; following the  
resizing of the current code sections, changing the code section start  
addresses; temporarily moving code sections into a file system  
20 section; replacing the identified current code section with the new  
code section by storing the code sections from the file system section  
into memory blocks to maintain contiguous addressing, in response to  
the compaction schedule; and, executing the updated system  
software.

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